

CNODE PLC

CNODE PLC is a reliable and robust smart streetlight outdoor luminaire controller that utilizes field-proven powerline communication technology. The device is an ideal solution for cities and municipalities looking to upgrade their traditional streetlight infrastructure to a smart and connected system with added security features.



✓ **POWERLINE COMMUNICATION**

✓ **VOLTAGE MEASUREMENTS**

✓ **DALI / 0-10V INTERFACES**

✓ **CURRENT MEASUREMENTS**



HOW IT WORKS

It is designed to withstand disturbances and provide high communication security in environments where radio interference is a concern, through power lines in combination with CBOX PLC



SPECIFICATION

PRODUCT CODE

HLCCNPLD

DIMENSIONS AND WEIGHT

Width: 162 mm

Depth: 50 mm

Height: 30 mm

Weight: 100 g

ENCLOSURE

IP class: 20

ENVIRONMENTAL REQUIREMENTS

Operating temperature: from -40° to $+75^{\circ}$ C

Storage temperature: from -40° to 85° C

Relative humidity: < 95% non-condensing

COMMUNICATION

PLC

Frequency: CELENEC B (95-125 kHz),

CELENEC A and C bands optional

Dynamic mesh topology

Network siz: up to 250 nodes

Network depth: up to 12 hops

Point-to-point distance: ~300 m

MEASUREMENT PARAMETERS

I - Current (A)

U - Voltage (V)

P - Power (W)

Cos φ - Power factor

E - Consumption (Wh)

POWER

Voltage: 230 VAC -15% ...+10%

Frequency: 50/60 Hz

Peak overvoltage: 3 kV/ 6 kV (optional)

Power consumption: <2W (Max peak 4W)

INPUTS AND OUTPUTS

1x Mains power

1x Relay output

1x DALI control interface

1x Digital input

STANDARDS

Directive 2014/35/EU Low Voltage Directive (LVD)

EN 62311: 2008

EN 61347-1:2015 (IEC 61347-1)

EN 61347-2-11

EN 62368-1:2014/AC:2015

EN 61984:2009

Directive 2014/30/EU Electromagnetic compatibility (EMC)

EN 61000-3-2:2014

EN 61000-3-3:2013

EN 61000-4-5:2014

EN 61000-4-4:2013

EN 61000-4-11:2014

EN 55015:2013+A1:2015

EN 62368-3:2020

EN 61547:2009

HD 60364-4-443:2016

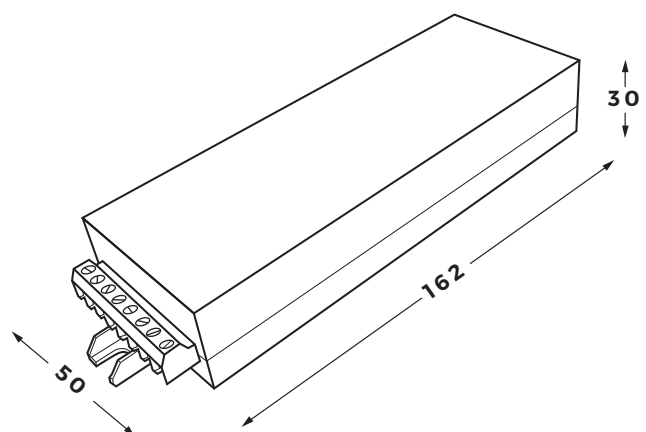
EN 60529

EN 50102

Directive 2011/65/EU RoHS directive

Directive 2012/19/EU WEEE directive

DIMENSIONS



SPECIFICATION

PRODUCT CODE

HLCCNPLV

DIMENSIONS AND WEIGHT

Width: 162 mm

Depth: 50 mm

Height: 30 mm

Weight: 100 g

ENCLOSURE

IP class: 20

ENVIRONMENTAL REQUIREMENTS

Operating temperature: from -40° to $+75^{\circ}$ C

Storage temperature: from -40° to 85° C

Relative humidity: < 95% non-condensing

COMMUNICATION

PLC

Frequency: CELENEC B (95-125 kHz),

CELENEC A and C bands optional

Dynamic mesh topology

Network siz: up to 250 nodes

Network depth: up to 12 hops

Point-to-point distance: ~300 m

MEASUREMENT PARAMETERS

I - Current (A)

U - Voltage (V)

P - Power (W)

Cos φ - Power factor

E - Consumption (Wh)

POWER

Voltage: 230 VAC -15% ...+10%

Frequency: 50/60 Hz

Peak overvoltage: 3 kV/ 6 kV (optional)

Power consumption: <2W (Max peak 4W)

INPUTS AND OUTPUTS

1x Mains power

1x Relay output

1x 0-10V control interface

1x Digital input

STANDARDS

Directive 2014/35/EU Low Voltage Directive (LVD)

EN 62311: 2008

EN 61347-1:2015 (IEC 61347-1)

EN 61347-2-11

EN 62368-1:2014/AC:2015

EN 61984:2009

Directive 2014/30/EU Electromagnetic compatibility (EMC)

EN 61000-3-2:2014

EN 61000-3-3:2013

EN 61000-4-5:2014

EN 61000-4-4:2013

EN 61000-4-11:2014

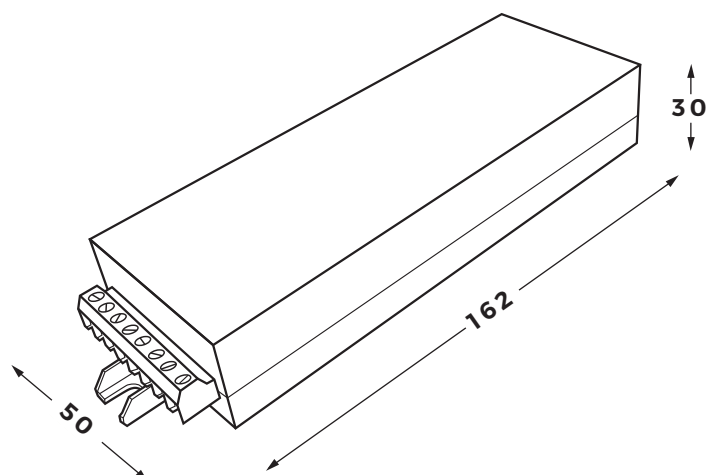
EN 55015:2013+A1:2015

EN 61547:2009

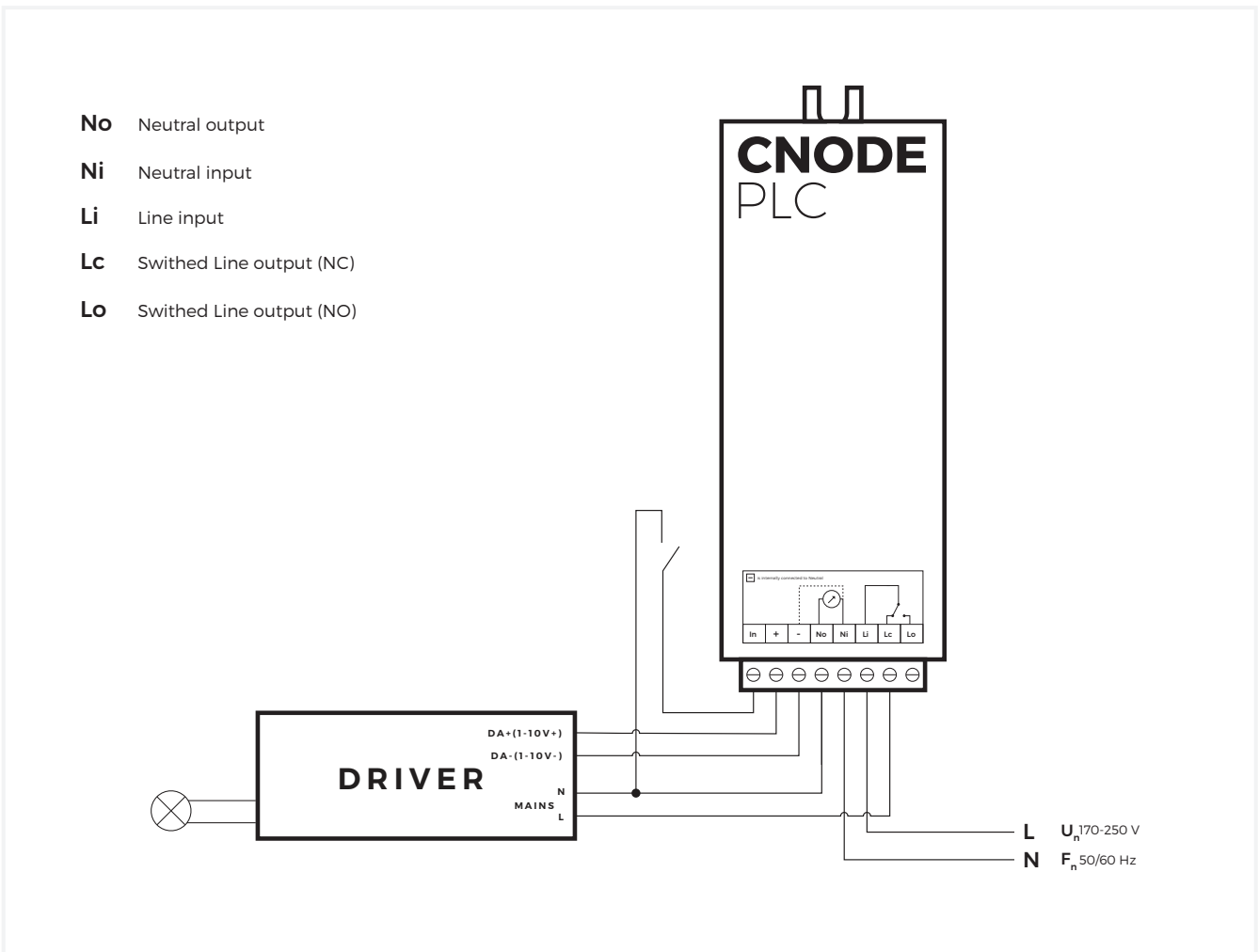
Directive 2011/65/EU RoHS directive

Directive 2012/19/EU WEEE directive

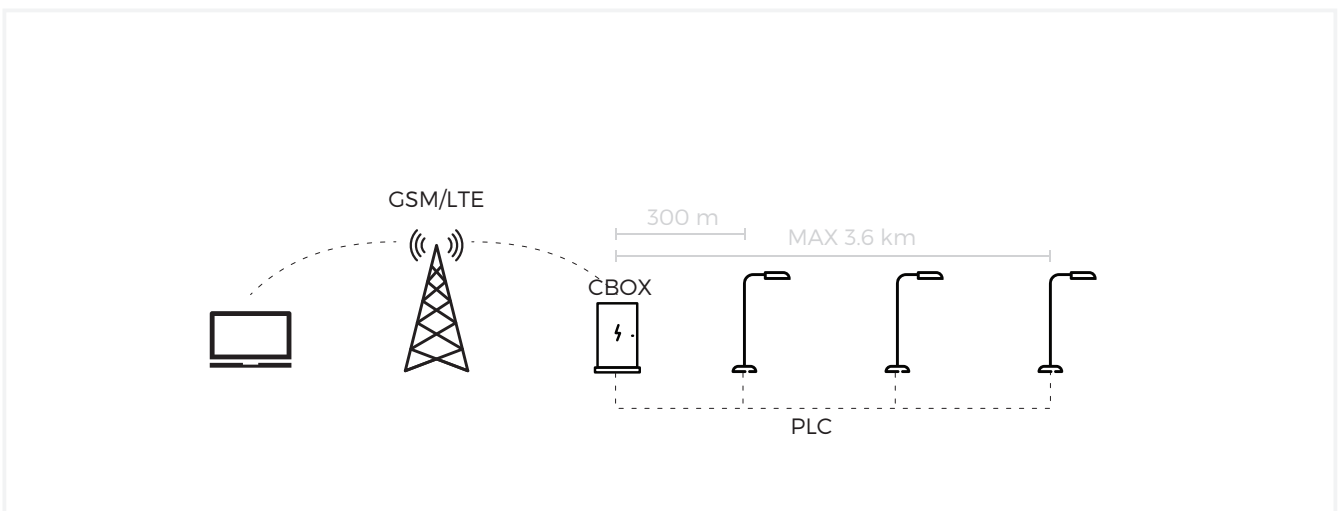
DIMENSIONS



WIRING DIAGRAM




COMMUNICATION MODE



INSTALATION INSTRUCTIONS

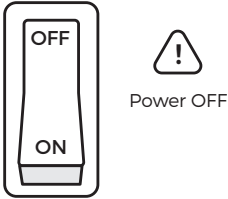
1

Caution, risk of electric shock



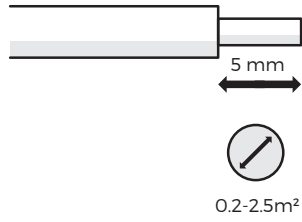
(Source: IEC 60417-6042 (2011-11))

2



Power OFF

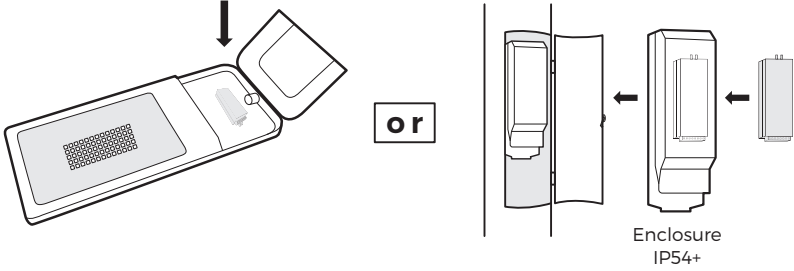
3



5 mm

0.2-2.5m²

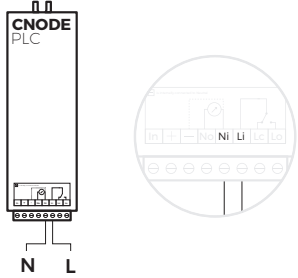
4 Luminaire mount



or

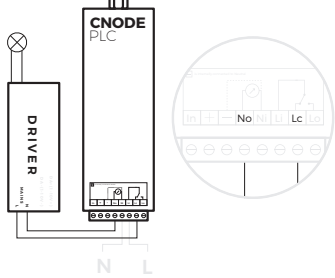
Enclosure IP54+

5 Mains connection



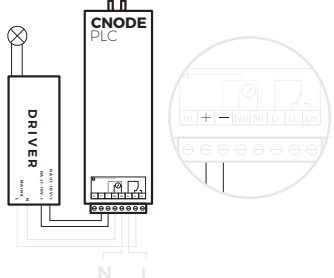
N L

6 Mains to driver connection




N L

7 Interface connection



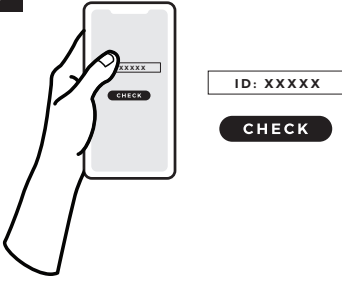
N L

8



Download APP:
citylight.net/app


9



ID: XXXXX


CHECK

10



Send collected data

11




Enter e-mail and click send.

email@email.com


SEND

12




Upload device ID numbers from file

13

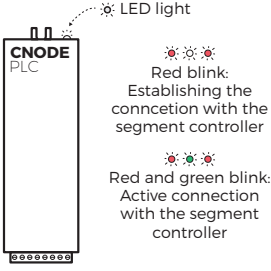


Power ON segment controller and luminaires



Switch ON relays on segment controller

14



LED light

Red blink:
Establishing the connection with the segment controller

Red and green blink:
Active connection with the segment controller